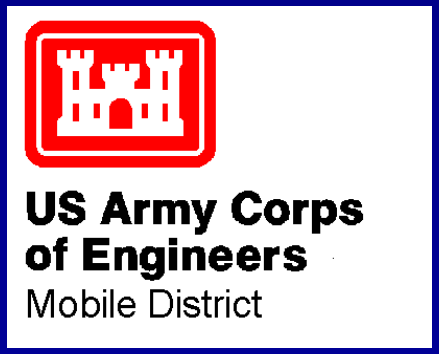
Longleaf Pine Ecosystem Restoration at Allatoona Lake

June 24, 2004

INTRODUCTION

- Facilitator – Terrell Stoves
  - Park Ranger with US Army Corps of Engineers
  - Project Forester
  - Forestry Engineering degree from Auburn University
  - 5 years with the Corps
  - Forestry, Wildlife, and Fisheries



AGENDA

- Please hold questions/comments until the presentation is complete.
- Please keep questions/comments under 2 minutes.
- Questions/comments will be addressed today if possible.

AGENDA

- INTRODUCTION
- PRESCRIPTION
- ECOSYSTEM BENEFITS
- EXPECTATIONS
- CONCLUSION
- QUESTION AND ANSWER SESSION

INTRODUCTION

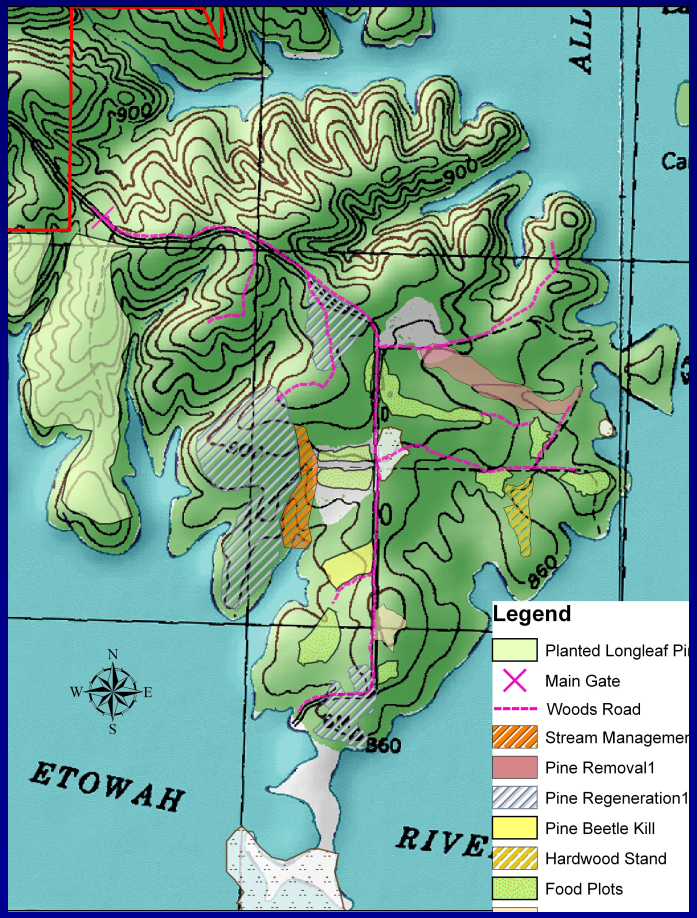
- US Army Corps of Engineers new ecosystem management strategy in timber/land management.
- Focus now includes considerations for soil types, hydrological conditions, herbaceous plants, wildlife, land use, past and existing forest conditions.

INTRODUCTION

- Our goal is to restore a portion of a diminished Longleaf pine ecosystem.
- Reaching this goal will involve harvesting the current stand, herbicide site preparation, and replanting.
- Consultations with: GA DNR, GFC, GA Native Plant Society, Nature Conservancy, NWTF, QU, DOD PIF, Dr. Martin Cipollini (Berry College), and Longleaf Alliance.

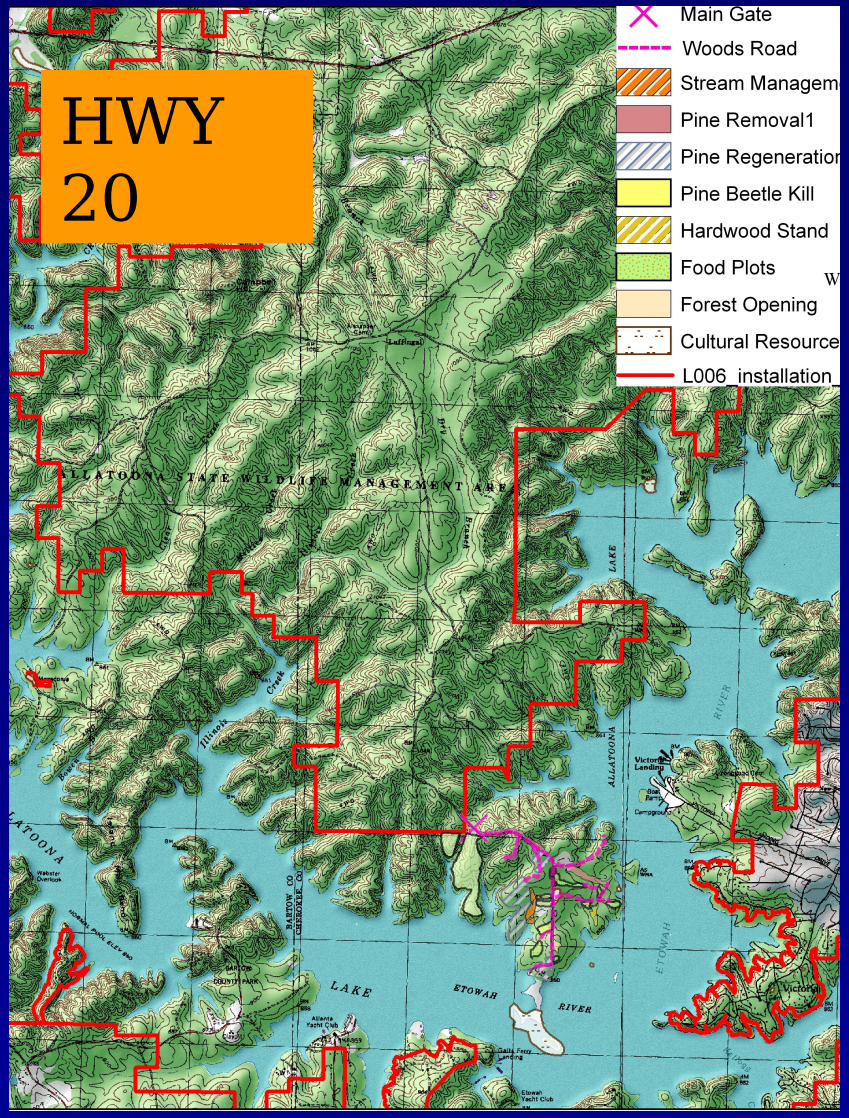
SITE DESCRIPTION

- Site is located in the Allatoona WMA in Cherokee County.
- Includes approximately 300 acres. 250 acres are in mature Loblolly pine.



SITE DESCRIPTION

CARTERSVILLE



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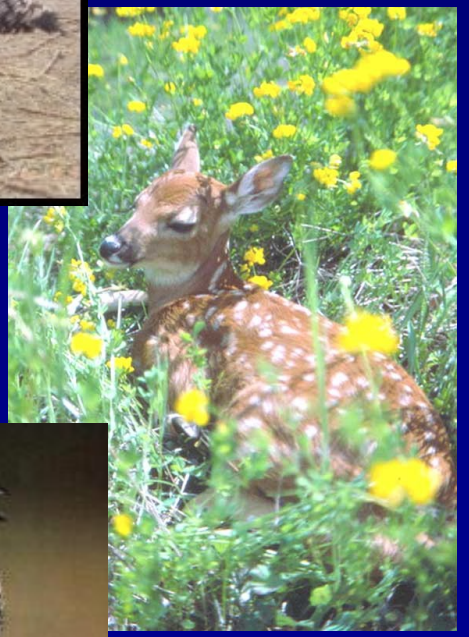
SITE DESCRIPTION

- Current Vegetation Composition
  - Approximately 75% Loblolly pine
  - 10% in food plots
  - 15% mixed pine/hardwood and hardwood

SITE DESCRIPTION

- Wildlife Present
  - Whitetail deer
  - Wild turkey
  - Bobwhite quail
  - Coyote



SITE DESCRIPTION

- Wildlife present
  - Rabbits
  - Songbirds
  - Raptors
  - Reptiles
  - Amphibians

SITE DESCRIPTION

- Exotic Plant Species
  - Russian olive (Autumn olive)
  - Tree-of-heaven
  - Chinese privet

GENERAL PLAN

- Harvest all pine timber.
  - Loblolly pine is the dominant species.
  - Longleaf pine is not aggressive.
  - Reestablishing the natural ecosystem will require removal of all pines within the affected area.
  - Leave mature hardwoods.

GENERAL PLAN

- Snag trees will be left as cavity trees.
  - These trees will serve as home for a variety of cavity-dwelling birds and other species.

Red-headed Woodpecker

GENERAL PLAN

- Loading decks will be restricted to existing food plots where possible.
  - These decks and all roads will be seeded with wildlife beneficial grasses to prevent erosion and provide benefit to wildlife.

GENERAL PLAN

- One growing season for regeneration.
- Regeneration will be treated with herbicide.
- Longleaf pine will thrive with limited competition for nutrients.

GENERAL PLAN

- We will allow six months to one year before planting.
- Seedlings will be planted on a natural spacing of 15’x15’.

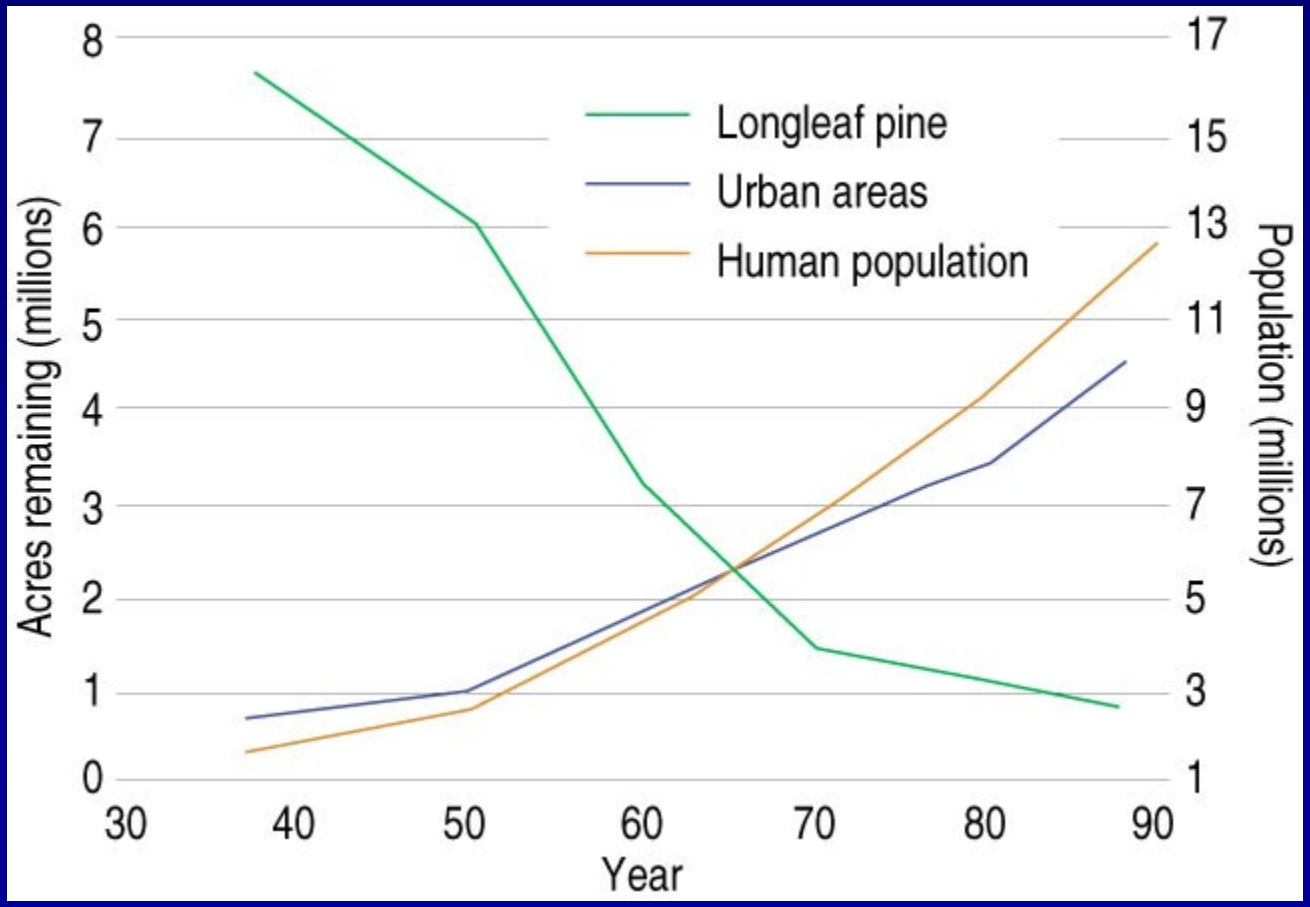
Seedlings planted March ‘03

GENERAL PLAN

- Future management will require prescribed fires approximately every 2-4 years. This will produce a natural looking stand of Longleaf pine.

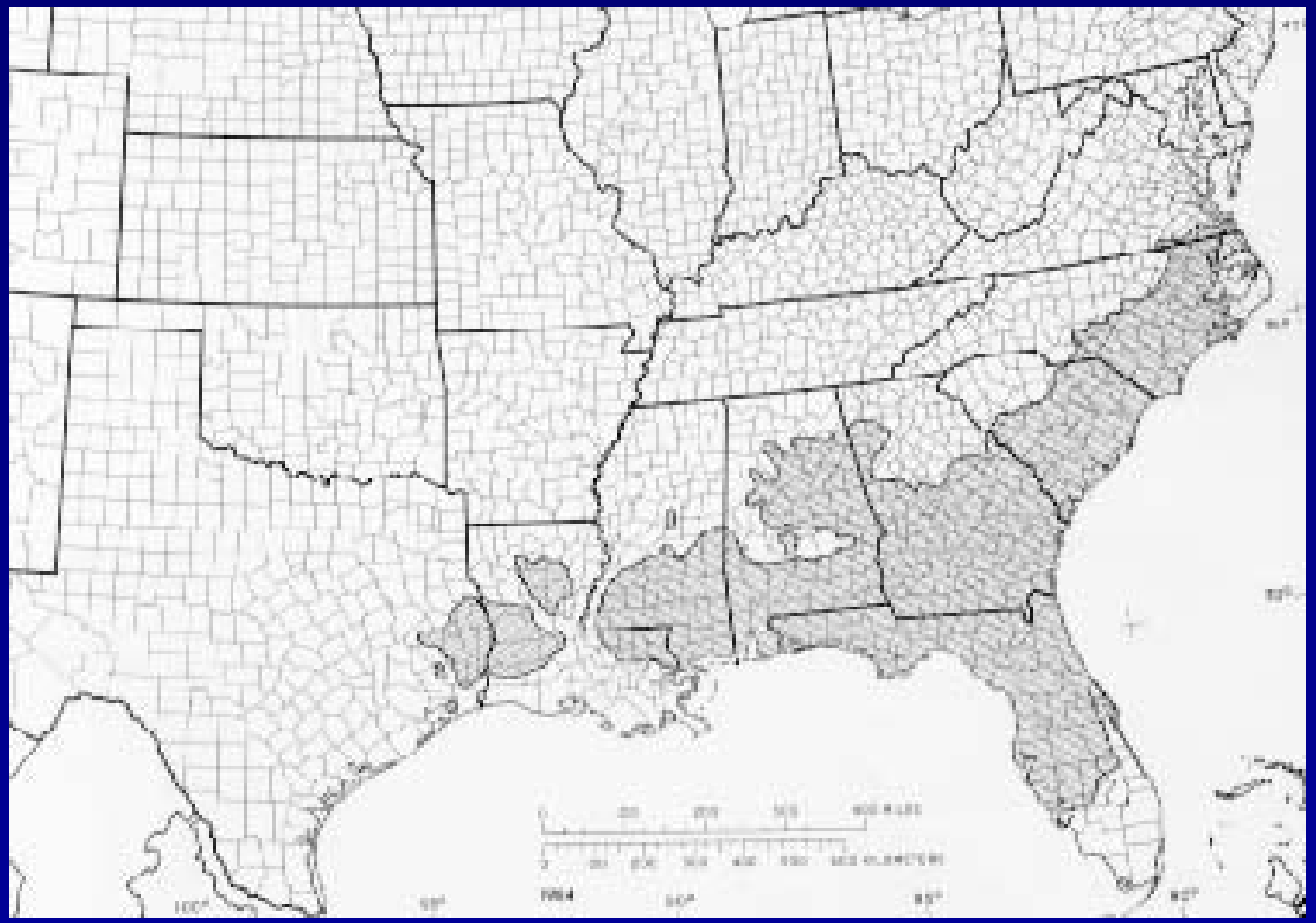
WHY RECOVER LONGLEAF

Relation of Longleaf pine acreage to human population and urban development



WHY RECOVER LONGLEAF

Natural Range of Longleaf Pine



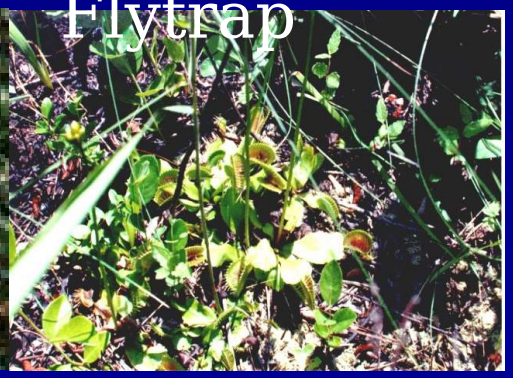
WHY RECOVER LONGLEAF

- Many species of concern exist primarily in Longleaf pine savannahs and bogs.

Flatwoods Salamander

Indigo Snake

Venus Flytrap



WHY RECOVER LONGLEAF

Red-cockaded Woodpecker

Gopher Tortoise

Pitcher Plants

WHY RECOVER LONGLEAF

- Open savannah grasslands are conducive to raptor species of concern.

Ospre
y

Bald Eagle

WHY RECOVER LONGLEAF

- Longleaf pine is more resistant to the Southern Pine Beetle

EXPECTATIONS

- 1st Year
  - Area will temporarily be unattractive.
  - Site will be almost barren, with only scattered mature oaks, hickories, and other hardwoods.
  - Very little vegetati

EXPECTATIONS

- 2nd Year
  - Herbicide will remove most vegetation.
  - Buffers will remain “brushy.”
  - Plant Longleaf seedlings.

EXPECTATIONS

- 3rd Year
  - Vegetation will return.
  - Wildflowers should be abundant.
  - Browse will grow back.
  - Turkeys will have nesting cover.
  - Longleaf should leave grass stage.

EXPECTATIONS

- 5th Year
  - Browse will return in full.
  - The site will be ready for its first prescribed fire.
  - Songbirds should be thriving.

EXPECTATIONS

- 10th Year
  - Longleaf pines should reach approximately 10-15 feet or more in height.
  - Any competing pines will be removed.
  - Fire will maintain open savannah understory.

CONCLUSION

- Decreased from 90 million acres to approximately 2.5 million.
- Most stands fragmented.
- US Army Corps of Engineers will bring back approximately 300 acres of this declining ecosystem.

CONCLUSION

- Short-term results will be unattractive.
- Long-term results will be a more diverse ecosystem and increased browse and wildlife habitat.
- This may be the first of several large tracts to be restored in this area.

QUESTION AND ANSWER

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